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(54) Title: TELEPHONE NUMBER/WEB PAGE LOOK-UP APPARATUS AND METHOD

(57) Abstract

A telephone number/Web page look-up apparatus (Fig. 5) may be implemented in a telephone answering apparatus (15) for answering telephone calls made to telephone numbers to be answered by the answering apparatus. The answering apparatus includes a storage device (16) storing information linking at least one of the telephone numbers for which telephone calls are being answered to a uniform resource locator (URL) identifying a page on the World Wide Web (Web page) associated with the telephone number. A look-up device (18) looks up the telephone number of each call answered and if found in the storage device, retrieves the URL identifying the Web page associated with the telephone number. A Web page display device (18) displays on display (12) the Web page associated with the telephone number in response to the retrieved URL.

TELEPHONE NUMBER/WEB PAGE
LOOK-UP APPARATUS AND METHOD

TECHNICAL FIELD

The present invention relates to a telephone
number/Web page look-up apparatus and method. A
telephone number/Web page look-up apparatus according to
the present invention may be implemented in a telephone
answering apparatus including a Web-enabled terminal
which automatically displays a Web page (a page on the
World Wide Web) associated with a telephone number for
which telephone calls are being answered by the telephone
answering apparatus when a user answers a telephone call
to the telephone number using the Web-enabled terminal.

BACKGROUND ART

Telephone answering apparatuses are well known in
the art. Typical applications of telephone answering
apparatuses are in telephone answering services, call
centers, and desktop applications.

A telephone answering service using a telephone
answering apparatus typically answers telephone calls for
clients it services. Telephone calls to clients'
telephone numbers are redirected to the telephone
answering service where they are answered by operators of
a telephone answering apparatus in a manner specified by
the clients, which may be intended to give the impression
that the telephone calls are being answered by the
clients themselves. The telephone answering apparatus
typically provides the operators with the capability to
record text messages from callers which the operators
later read back to the clients, to forward telephone
calls to a voice mail system from which the clients later
retrieve messages from callers, and, if applicable, to
provide other telephone call processing operations
specified by the clients, such as taking orders from

callers for products and services offered by the clients. The telephone answering apparatus also typically includes an auto attendant which automatically answers telephone calls without requiring an operator's attention for

5   clients who have selected this option. The auto attendant typically uses interactive voice response techniques to enable callers to use Touchtone keys to select how their telephone calls are to be processed. For example, the auto attendant may enable the callers to

10   select to have their telephone calls transferred to another telephone number, to the voice mail system, or to an operator of the telephone answering apparatus. A typical example of a client of telephone answering service is a doctor's office for which the telephone

15   answering service answers telephone calls outside normal business hours.

A call center using a telephone answering apparatus is similar to a telephone answering service and provides basically the same services as a telephone answering

20   service, except that a call center typically answers telephone calls for a single client, which typically operates the call center, while a telephone answering service typically answers telephone calls for a number of clients, none of which operate the telephone answering

25   service. A typical example of a call center is a customer service department of a business.

A desktop application using a telephone answering apparatus is typically implemented on a PC (personal computer) or a workstation used by an individual user,

30   and enables the individual user to answer and process his telephone calls in basically the same manner as a telephone answering service. In this case, the individual user is the client. Typical environments for desktop applications using a telephone answering

35   apparatus include a business environment, a SOHO (small

office home office) environment, and a home or personal use environment.

The term "client" in the present application means any entity whose telephone calls are being answered by a telephone answering apparatus, such as a business, a specific department of a business, or an individual user.

The term "user" in the present application means any person who uses a terminal to answer telephone calls to telephone numbers for which telephone calls are being answered by a telephone answering apparatus, such as an operator in a telephone answering service, an operator in a call center, or an individual user.

The term "terminal" in the present application means any device which is used by a user to answer telephone calls to telephone numbers for which telephone calls are being answered by a telephone answering apparatus, such as an operator station of a telephone answering service, an operator station of a call center, or a personal computer or a workstation used by an individual user.

Fig. 1 shows a conceptual diagram of an example of a prior-art telephone answering apparatus 1 which includes a telephony interface 4, an auto attendant 5, a voice mail system 6, a text message system 7, a client database 8 storing client data files 9, a terminal 10, an audio headset 11, a display 12, a keyboard 13, and a mouse 14.

Although Fig. 1 shows a mouse 14, which is a conventional example of a pointing device, it will be apparent to one of ordinary skill in the art that any other conventional pointing device may be used in place of mouse 14.

Although Fig. 1 shows a single terminal 10, a plurality of terminals may be provided when necessary, such as in a telephone answering service which answers telephone calls for a number of clients, or in a call center which answers telephone calls for a large client.

Telephony interface 4 is operatively connected by telephone line(s) 3 to a telco (telephone company) 2, such as a public or private switched telephone network.

Auto attendant 5 is operatively connected to telephony interface 4, voice mail system 6, and terminal 10, and automatically answers telephone calls without requiring a user's attention for clients who have selected this option. Auto attendant 5 uses interactive voice response techniques to enable callers to use Touchtone keys to select how their telephone calls are to be processed. For example, auto attendant 5 may enable the callers to select to have their telephone calls transferred to another telephone number, to voice mail system 6, or to terminal 10 for answering by a user.

Terminal 10 is operatively connected to telephony interface 4, auto attendant 5, voice mail system 6, text message system 7, client database 8, audio headset 11, display 12, keyboard 13, and mouse 14, and enables a user to use audio headset 11, display 12, keyboard 13, and mouse 14 to answer and process telephone calls for clients received from telco 2 over telephone line(s) 3. The telephone calls may arrive at terminal 10 directly from telephony interface 4, or indirectly from telephony interface 4 via auto attendant 5. Terminal 10 enables the user to take messages from callers using audio headset 11 and record the messages using display 12, keyboard 13, and mouse 14 for storage in text message system 7, or to forward telephone calls to voice mail system 6 at the callers' request. If applicable, terminal 10 also enables the user to provide other telephone call processing operations specified by the clients using audio headset 11, display 12, keyboard 13, and mouse 14 as necessary, such as taking orders from callers for products and services offered by the clients.

Client database 8 stores a client data file 9 for each client whose telephone calls are being answered by

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prior-art telephone answering apparatus 1. Client data file 9 includes data items which provide information identifying the client and specifying how the client's telephone calls are to be answered and processed. These data items are well known in the art. Auto attendant 5 and the user of terminal 10 answer telephone calls for the client based on the data items in client data file 9, which include a data item specifying whether telephone calls for the client are to be answered initially by auto attendant 5 or by the user of terminal 9. Such a data item is well known in the art.

It is noted that the connections between the elements of prior-art telephone answering apparatus 1 shown in Fig. 1 are conceptual connections, and do not necessarily represent actual physical connections. As will be apparent to one of ordinary skill in the art, the conceptual connections shown in Fig. 1 may be implemented with many different actual physical connections, which may include direct-wired connections, bus connections, network connections, and any other connections which are known in the art.

Furthermore, it is noted that prior-art telephone answering apparatus 1 shown in Fig. 1 is merely exemplary, and many modifications of prior-art telephone answering apparatus 1 will be apparent to one of ordinary skill in the art.

Examples of prior-art telephone answering apparatus 1 shown in Fig. 1 are disclosed in U.S. Patent Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and 5,469,491 and U.S. Reexamination Certificate B1 4,916,726 which are assigned to the assignee of the present application. The contents of U.S. Patent Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and 5,469,491 and U.S. Reexamination Certificate B1 4,916,726 are incorporated herein by reference in their entirety.

U.S. Patent Nos. 4,916,726 and 5,420,852 each include a microfiche appendix listing a computer program for implementing an embodiment of prior-art telephone answering apparatus shown in Fig. 1 using IBM

5   AT-compatible PCs.

An example of a device which may be used to implement telephony interface 4, auto attendant 5, text message system 6, voice mail system 7, and client database 8 of prior-art telephone answering apparatus 1

10   shown in Fig. 1 is the commercially available Amtelco Infinity CTI (computer-telephony integration) server, version 4.4.0j, which was available from American Tel-A-System, Inc. (Amtelco), McFarland, Wisconsin, the assignee of the present invention, as of the filing date

15   of the present application. The Amtelco Infinity CTI server is based on an IBM AT-compatible PC.

An example of a device which may be used to implement terminal 10 of prior-art telephone answering apparatus 1 shown in Fig. 1 is a commercially available

20   IBM AT-compatible PC running an Amtelco DOS (disk operating system) terminal application program which was available from Amtelco as of the filing date of the present application for use with the Amtelco Infinity CTI server.

25   Although specific capabilities and applications of telephone answering apparatuses have been described above, it is noted that other capabilities and applications of telephone answering apparatuses are well known in the art, and that further capabilities and

30   applications of telephone answering apparatuses will be apparent to one of ordinary skill in the art.

Over the past several years, the use of the Internet and the World Wide Web by organizations and individuals has increased dramatically, and is continuing to increase

35   at a rapid rate.

Many organizations, such as businesses, not-for-profit organizations, educational institutions, and governmental agencies, have implemented sites on the World Wide Web (Web sites) including one or more pages

5   (Web pages) which provide information about the organizations and products and services they offer. These Web sites may enable individuals to interact with the organizations, such as by ordering products and services directly from the organizations via the Web

10   sites.

Also, many individuals have implemented Web sites including one or more Web pages which provide information about themselves and topics they are interested in.

As is well known in the art, Web sites may also be

15   implemented on an intranet, which is basically similar to the Internet, except that an intranet is typically implemented by an organization or individual primarily for exclusive use by that organization or individual. However, the organization or individual may also permit

20   outsiders to use its intranet.

Web pages may include many different types of information which are well known in the art, such as HTML (hypertext markup language) documents, Java scripts, and ActiveX scripts.

25   Web pages are identified by a unique Internet or intranet address known as a URL (universal resource locator), which is well known in the art. A Web page may be displayed on a display of a PC using a software application known as a Web browser running on the PC by

30   entering the URL of the Web page in a URL field in a screen displayed by the Web browser. Many different Web browsers are well known in the art.

The information available on Internet and intranet Web sites that have been implemented by organizations and

35   individuals can only be accessed by individuals who have access to the Internet. Although the number of

individuals who have access to the Internet has increased dramatically over the past several years, there are still many individuals who do not have access to the Internet. Furthermore, even though an individual may have access to
5   the Internet, he may not be aware that a particular organization or individual he is interested in contacting or learning more about has implemented an Internet or intranet Web site, or he may not be permitted to access a particular intranet Web site he is interested in.

10   Many organizations and individuals which have implemented Web sites also use telephone answering apparatuses, either directly, such as in call centers which they operate or desktop applications they use, or indirectly, such as in telephone answering services of
15 which they are clients.

It would be desirable if a terminal in a telephone answering apparatus could automatically display a Web page from a client's Web site when a user answers a telephone call for the client, and provide the user with
20 the capability of navigating through the Web site while processing the telephone call. This would enable the user to quickly provide information available on the client's Web site to the caller. However, prior-art telephone answering apparatuses do not have this
25 capability.

The article "MULTI CALL: WebCall--a real Virtual Call Centre", M2 Presswire, November 27, 1995, describes WebCall, a virtual call center which provides Web pages which a customer can access with a Web browser. If the
30 customer requires support while browsing the virtual call center Web pages, he can click on an embedded telephone graphic, which will cause WebCall to place locate and place a telephone call to a dedicated or virtual agent who has the necessary skill set, compatible with the
35 customer's known or assumed characteristics, and transfer the telephone call and the relevant Web page to the

agent's desktop. However, in this case, the Web page which is displayed on the agent's desktop when the agent answers the customer's telephone call was selected by the customer, rather than being automatically displayed in

5　response to the customer's telephone call. Thus, the M2 Presswire reference does not disclose automatically displaying one of the virtual call center Web pages when an agent answers a telephone call from customer calling the virtual call center.

10　　　　U.S. Patent No. 5,793,861 to Haigh discloses a transaction processing system and method which includes a telephone answering apparatus, and has the capability of receiving data transmissions from the Internet and the World Wide Web and identifying and storing Internet

15　addresses of the received data transmissions. However, Haigh does not disclose automatically displaying a Web page from a client's Web site when a user of the telephone answering apparatus answers a telephone call for the client.

20　　　　U.S. Patent No. 5,724,412 to Srinivasan discloses a method and system for providing a telephony subscriber with Internet information related to a caller calling the subscriber. In one of the embodiments disclosed by Srinivasan, a Web page related to a caller is

25　automatically displayed on the subscriber's equipment when the caller calls the subscriber. However, Srinivasan does not disclose automatically displaying a Web page of the subscriber when a caller calls the subscriber.

30　　　　Thus, the M2 Presswire reference, Haigh, and Srinivasan do not disclose a telephone answering apparatus which automatically displays a Web page from a client's Web site when a user answers a telephone call for the client.

DISCLOSURE OF INVENTION

The present invention provides a telephone answering apparatus including a Web-enabled terminal having a telephone number/Web page look-up feature and a Web browser feature which enable the Web-enabled terminal to automatically display a Web page from a client's Web site when a user answers a telephone call for the client using the Web-enabled terminal.

Stated in another way, the present invention provides a telephone answering apparatus including a Web-enabled terminal which automatically displays a Web page (a page on the World Wide Web) associated with a telephone number for which telephone calls are being answered by the telephone answering apparatus when a user answers a telephone call to the telephone number using the Web-enabled terminal.

According to the present invention, a telephone answering apparatus for answering telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering apparatus includes a storage device which stores information linking at least one of the telephone numbers for which telephone calls are being answered by the telephone answering apparatus to a uniform resource locator (URL) identifying a page on the World Wide Web (Web page) associated with the telephone number, a look-up device which looks up the telephone number of each telephone call answered by the telephone answering apparatus in the storage device and, if the telephone number is found in the storage device, retrieves the URL identifying the Web page associated with the telephone number from the storage device, a display, and a Web page display device which displays on the display the Web page associated with the telephone number of the telephone call answered by the telephone answering apparatus in response to the URL retrieved from the storage device.

BRIEF DESCRIPTION OF DRAWINGS

Fig. 1 shows a conceptual diagram of an example of a prior-art telephone answering apparatus.

Fig. 2 shows a conceptual diagram of an example of a telephone answering apparatus according to the present invention including a Web-enabled terminal which a user uses to answer telephone calls for a client.

Fig. 3 shows a conceptual example of the format of a client data file stored in a client database in the telephone answering apparatus according to the present invention shown in Fig. 2.

Fig. 4 shows a conceptual example of a Web browser screen which is displayed by the Web-enabled terminal according to the present invention shown in Fig. 2 when a user answers a telephone call for a client using the Web-enabled terminal.

Fig. 5 shows a flow chart of a process which Web-enabled terminal according to the present invention shown in Fig. 2 performs to automatically display a Web page from a client's Web site in the Web browser screen shown in Fig. 4 when a user answers a telephone call for the client using the Web-enabled terminal.

Fig. 6 shows a conceptual diagram wherein three telephone calls which have been answered by a user using the Web-enabled terminal according to the present invention shown in Fig. 2 are active simultaneously, and three copies of a Web browser corresponding to the three active answered telephone calls which have been opened by the Web-enabled terminal are displaying Web pages associated with the telephone numbers of the three active answered telephone calls.

BEST MODE FOR CARRYING OUT THE INVENTION

Fig. 2 shows a conceptual diagram of an example of a telephone answering apparatus 15 according to the present invention which includes a telephony interface 4, an auto

attendant 5, a voice mail system 6, a text message system 7, a client database 16 storing client data files 17, a Web-enabled terminal 18, an audio headset 11, a display 12, a keyboard 13, a mouse 14, and an Internet or intranet connection 19 connected to the Internet or an intranet 20. Many different connections suitable for use as Internet or intranet connection 19 are well known in the art.

Although Fig. 2 shows a mouse 14, which is a conventional example of a pointing device, it will be apparent to one of ordinary skill in the art that any other conventional pointing device may be used in place of mouse 14.

Although Fig. 2 shows a single Web-enabled terminal 18, a plurality of Web-enabled terminals may be provided when necessary, such as in a telephone answering service which answers telephone calls for a number of clients, or in a call center which answers telephone calls for a large client.

Telephony interface 4 is operatively connected by telephone line(s) 3 to a telco (telephone company) 2, such as a public or private switched telephone network.

Auto attendant 5 is operatively connected to telephony interface 4, voice mail system 6, and Web-enabled terminal 18, and automatically answers telephone calls without requiring a user's attention for clients who have selected this option. Auto attendant 5 uses interactive voice response techniques to enable callers to use Touchtone keys to select how their telephone calls are to be processed. For example, auto attendant 5 may enable the callers to select to have their telephone calls transferred to another telephone number, to voice mail system 6, or to Web-enabled terminal 18 for answering by a user.

Web-enabled terminal 18 is operatively connected to telephony interface 4, auto attendant 5, voice mail

system 6, text message system 7, client database 16,
audio headset 11, display 12, keyboard 13, mouse 14, and
Internet or intranet connection 19, and enables a user to
use audio headset 11, display 12, keyboard 13, and mouse

5   14 to answer and process telephone calls for clients
received from telco 2 over telephone line(s) 3. The
telephone calls may arrive at Web-enabled terminal 18
directly from telephony interface 4, or indirectly from
telephony interface 4 via auto attendant 5. Web-enabled

10   terminal 18 enables the user to take messages from
callers using audio headset 11 and record the messages
using display 12, keyboard 13, and mouse 14 for storage
in text message system 7, or to forward telephone calls
to voice mail system 6 at the callers' request. If

15   applicable, Web-enabled terminal 18 also enables the user
to provide other telephone call processing operations
specified by the clients using audio headset 11, display
12, keyboard 13, and mouse 14 as necessary, such as
taking orders from callers for products and services

20   offered by the clients.

        The basic telephone call answering and processing
capabilities provided by Web-enabled terminal 18
according to the present invention are the same as those
provided by terminal 9 in prior-art telephone answering

25   apparatus 1 shown in Fig. 1. However, as will be
discussed in detail below, Web-enabled terminal 18
according to the present invention also has a telephone
number/Web page look-up feature and a Web browser feature
wherein Web-enabled terminal 18 automatically displays a

30   Web page from a client's Web site when a user answers a
telephone call for the client, and provides the user with
the capability of navigating through the client's Web
site while processing the telephone call. Terminal 9 in
prior-art telephone answering apparatus 1 shown in Fig. 1

35   does not have the telephone number/Web page look-up

feature or the Web browser feature of Web-enabled
terminal 18 according to the present invention.

    Client database 16 stores a client data file 17 for
each client whose telephone calls are being answered by
5   telephone answering apparatus 15. Client data file 17
according to the present invention includes data items
which provide information identifying the client and
specifying how the client's telephone calls are to be
answered and processed. Many of these data items are the
10   same as the data items in client data file 9 in client
database 8 in prior-art telephone answering apparatus 1
shown in Fig. 1, and are well known in the art. However,
as will be discussed in detail below, client data file 17
according to the present invention also includes certain
15   data items which are not known in the prior art, but
which are part of the present invention. Auto attendant
5 and the user of Web-enabled terminal 18 answer
telephone calls for the client based on the data items in
client data file 17, which include a data item specifying
20   whether telephone calls for the client are to be answered
initially by auto attendant 5 or by the user of
Web-enabled terminal 18. Such a data item is well known
in the art.

    Fig. 3 shows a conceptual example of the format of a
25   client data file 17 in client database 16 which includes
the following data items:

- Client Number--The telephone number of a client
  for which telephone calls are to be answered by
  telephone answering apparatus 15.
30   • Client Name--The name of the client whose
  telephone calls are to be answered by telephone
  answering apparatus 15.
- Client Answer Phrase--An answer phrase which a
  user of Web-enabled terminal 18 is to speak
35   when answering a telephone call for the client.

- Auto-pop URL--A URL (universal resource
  locator) identifying a Web page which is to be
  automatically displayed on display 12 by
  Web-enabled terminal 18 when the user of

5   Web-enabled terminal 18 answers a telephone
  call for the client.

- Additional URLs--URLs identifying additional
  Web pages which may be displayed on display 12
  by Web-enabled terminal 18 at the request of

10   the user of Web-enabled terminal 18 while the
  user is processing a telephone call for the
  client.

The client name, the client number, and the client
answer phrase in client data file 17 in client database

15   16 according to the present invention are well known in
the art, and are also included in client data file 9 in
client database 8 in prior-art telephone answering
apparatus 1 shown in Fig. 1. The auto-pop URL and the
additional URLs in client data file 17 in client database

20   16 according to the present invention are part of the
present invention, and are not included in client data
file 9 in client database 8 in prior-art telephone
answering apparatus 1 shown in Fig. 1.

Although Fig. 3 shows only five data items in client

25   data file 17, it will be apparent to one of ordinary
skill in the art that client data file 17 may include
additional data items which are well known in the art and
which provide additional information specifying how the
client's telephone calls are to be answered and

30   processed.

Referring again to Fig. 2, the auto-pop URL in
client data file 17 identifies a Web page which is hosted
by a Web server 22 which is operatively connected to
Internet or intranet 20 via an Internet or intranet

35   connection 21. Although the Web page identified by the
auto-pop URL is described in the present application as

being a Web page from a client's Web site, it may be any
Web page which the client wants to be displayed to a user
of Web-enabled terminal 18 when the user answers a
telephone call for the client. Although Fig. 2 only

5   shows one Web server 22 connected to Internet or intranet
20, it will be apparent to one of ordinary skill in the
art that many such Web servers are in fact connected to
the Internet, and may be connected to an intranet. The
additional URLs in client data file 17 identify Web pages

10   which are hosted by Web server 22 and/or other such Web
servers connected to Internet or intranet 20.

       When a user of Web-enabled terminal 18 answers a
telephone call for a client, Web-enabled terminal 18
retrieves the client name, the client answer phrase, and

15   the auto-pop URL from the client data file 17 for the
client in client database 16, retrieves the Web page
identified by the auto-pop URL from Web server 22 via
Internet or intranet connection 19, Internet or intranet
20, and Internet or intranet connection 21, and displays

20   the client name, the client answer phrase, and the Web
page on display 12 for viewing by the user. This process
is described below in greater detail with reference to
Fig. 5.

       Fig. 4 shows a conceptual example of a Web browser

25   screen 23 which Web-enabled terminal 18 displays on
display 12. Web browser screen 23 includes a telephone
toolbar 24 and a Web browser 25.

       An incoming telephone call is displayed to the user
of Web-enabled terminal 18 on telephone toolbar 24. The

30   user can answer the telephone call and perform all
telephone call processing functions, such as dialing,
paging, transferring, conferencing, patching, and
accessing voice mail system 6, using telephone toolbar
24, keyboard 13, and mouse 14. These telephone call

35   processing functions are well known in the art.

Although Web browser screen 23 shown in Fig. 4 includes both telephone toolbar 24 and Web browser 25, telephone toolbar 24 and Web browser 25 operate independently of one another. Telephone toolbar 24

5 remains active even if the user is working in another application running on Web-enabled terminal 18 so that the user can continue to process telephone calls using telephone toolbar 24, keyboard 13, and mouse 14 even while working in the other application.

10 As shown in Fig. 4, telephone toolbar 24 displays the following information:

- Terminal Number--A number identifying Web-enabled terminal 18 within telephone answering apparatus 15.

15 - User Log-In Name--The name under which the user of Web-enabled terminal 18 is logged into telephone answering apparatus 15.

- Current Call State--The state of the telephone call which is currently displayed on telephone
20 toolbar 24. Various call states are well known in the art.

- Current Call Timer--Shows how long the telephone call which is currently displayed on telephone toolbar 24 has been in its current
25 state.

- Client Number--The telephone number for which the telephone call which is currently displayed on telephone toolbar 24 is being answered.

- Client Name--The name of the client whose
30 telephone call is currently displayed on telephone toolbar 24.

- Client Answer Phrase--The answer phrase which the user of Web-enabled terminal 18 is to speak when answering the telephone call which is
35 currently displayed on telephone toolbar 24.

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- Call Kind--The kind of the telephone call which is currently displayed on telephone toolbar 24. Various call kinds are well known in the art.

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- From--Information identifying the origin of the telephone call which is currently displayed on telephone toolbar 24.

- Reader Board--Information about what else is happening with telephone calls in telephone answering apparatus 15.

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- On/Off--Indicates whether the user of Web-enabled terminal 18 is enabled to receive incoming telephone calls, where on = enabled and off = not enabled.

- Date--The current date.

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- Time--The current time.

As shown in Fig. 4, Web browser 25 displays a Web page, and provides the following control buttons which the user of Web-enabled terminal 18 may activate using keyboard 13 and/or mouse 14:

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- Back--Allows the user to move back through previously visited Web pages.

- Forward--Allows the user to move forward through previously visited Web pages.

- Refresh--Allows the user to instruct Web

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  browser 25 to request that the Web page which is currently being displayed be refreshed from the Web server which is hosting the Web page.

- Stop--Allows the user to instruct Web browser 25 to stop requesting information for the Web

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  page which is currently being displayed from the Web server which is hosting the Web page.

- Home--Allows the user to instruct Web browser 25 to return to a home Web page specified for Web-enabled terminal 18.

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- Zoom--Allows the user to instruct Web browser 25 to toggle between a full screen mode in

which telephone toolbar 24 is hidden, and a
partial screen mode as shown in Fig. 4 in which
telephone toolbar 24 is visible.

5
- Cancel--Allows the user to close Web browser
  25. Telephone toolbar 24 remains active and
  visible after Web browser 25 is closed.

Fig. 5 shows a flow chart of the process which
Web-enabled terminal 18 performs to automatically display
a Web page from a client's Web site in Web browser screen
10   23 when a user answers a telephone call for the client
using Web-enabled terminal 18.

In step 26, a user answers a telephone call for a
client using Web-enabled terminal 18. In step 27,
Web-enabled terminal 18 looks up the client number in
15   client database 16. The client number is typically the
telephone number of the answered telephone call, but it
may be any other number or label identifying the client,
which other number or label may or may not be indicative
of the telephone number of the answered telephone call.
20   In step 28, if the client number is not found in one of
client data files 17 in client database 16, the process
proceeds to step 32 where it ends, while if the client
number is found in one of client data files 17 in client
database 16, the process proceeds to step 29. In step
25   29, Web-enabled terminal 18 retrieves the client name,
the client answer phrase, and the auto-pop URL from the
client data file 17 in client database 16 which includes
the client number. In step 30, Web-enabled terminal 18
uses Web browser 25 to retrieve the Web page identified
30   by the auto-pop URL from Web server 22 via Internet or
intranet connection 19, Internet or intranet 20, and
Internet or intranet connection 21. In step 31,
Web-enabled terminal 18 displays Web browser screen 23 on
display 12, showing the client number, the client name,
35   and the client answer phrase in telephone toolbar 24, and

showing the Web page in Web browser 25. The process then
proceeds to step 32 where it ends.

After the Web page identified by the auto-pop URL
has been displayed, the user may use keyboard 12 and/or
5   mouse 13 to retrieve the additional URLs in the client
data file 17 for the client in client database 16 and
instruct Web browser 25 to retrieve and display the Web
pages identified by the additional URLs. The user may
use keyboard 13 and/or mouse 14 to specify other URLs and
10   instruct Web browser 25 to retrieve and display Web pages
identified by the other URLs. The user may use mouse 14
to click on any hyperlinks in any Web page which is
currently being displayed by Web browser 25 to instruct
Web browser 25 to retrieve and display other Web pages
15   identified by the hyperlinks. The user may use keyboard
13 and/or mouse 14 to activate the Web browser control
buttons shown in Fig. 4 to navigate through previously
visited Web sites. The user may use keyboard 13 and/or
mouse 14 to enter information into any form which may
20   appear on any Web page which is currently being displayed
by Web browser 25.

Web-enabled terminal 18 allows the user to open Web
browser 25 on demand by using keyboard 13 and/or mouse
14, which allows the user to access Web pages even if the
25   user is not currently processing a telephone call, or if
the telephone number for which the user is currently
processing a telephone call does not have any Web pages
associated with it, as would be the case if client data
file 17 for the client for which the user is currently
30   processing a telephone call does not include either an
auto-pop URL or additional URLs.

Web-enabled terminal 18 enables the user to dial
telephone numbers using a dial request function to
initiate outgoing telephone calls, and enables the user
35   to use the same dial request function to instruct Web
browser 25 to retrieve and display a specific Web page by

inputting the URL of the Web page as a URL dial string
having the following format:

"www.world-wide-web-address.com"U

The URL of the Web page is inside the quotation marks,
and the "U" identifies the dial string as a URL dial
string. The auto-pop URL and the additional URLs in
client data file 17 are stored in this format.

Web-enabled terminal 18 enables a plurality of
telephone calls answered by the user to be active
simultaneously, and enables the user to move between the
active answered telephone calls with a single command
from keyboard 13 or mouse 14 to select one of the active
answered telephone calls for processing. The single
command may be a single keystroke on keyboard 13 or a
single operation of mouse 14.

Each time the user of Web-enabled terminal 18
answers a telephone call while one or more other answered
telephone calls are still active and the newly answered
telephone call is to a telephone number having a Web page
associated therewith, Web-enabled terminal 18 opens a new
copy of Web browser 25 corresponding to the newly
answered telephone call, and the newly opened copy of Web
browser 25 displays the Web page associated with the
telephone number of the newly answered telephone call.

As the user moves between the active answered
telephone calls to select one of the active answered
telephone calls for processing, Web-enabled terminal 18
displays the copy of Web browser 25 which is displaying
the Web page associated with the telephone number of the
active answered telephone call which the user has
selected for processing.

Fig. 6 shows a conceptual diagram wherein three
telephone calls which have been answered by the user of
Web-enabled terminal 18 are active simultaneously, and
three copies of Web browser 25 corresponding to the three
active answered telephone calls which have been opened by

Web-enabled terminal 18 are displaying Web pages associated with the telephone numbers of the three active answered telephone calls. Active answered telephone call 1 has been selected for processing, so the copy of Web browser 25 corresponding to active answered telephone call 2 which has been selected for processing is displayed on top of the copies of Web browser 25 corresponding to active answered telephone calls 1 and 3 which have not been selected for processing, such that only the copy of Web browser 25 corresponding to active answered telephone call 2 which has been selected for processing is visible.

Web-enabled terminal 18 has a Web browser data exchange feature which enables it to pass data about the telephone call which is currently being displayed on telephone toolbar 24 to Web browser 25. Such data may be required by the Web page currently being displayed by Web browser 25, and may include the following data items, some of which were described above with reference to Fig. 4:

- User Log-In Name--The name under which the user of Web-enabled terminal 18 is logged into telephone answering apparatus 15.
- User Initials--The initials of the user of Web-enabled terminal 18.
- Terminal Number--A number identifying Web-enabled terminal 18 within telephone answering apparatus 15.
- Client Number--The telephone number for which the telephone call which is currently displayed on telephone toolbar 24 is being answered.
- Client Name--The name of the client whose telephone call is currently displayed on telephone toolbar 24.
- Automatic Number Identification--The telephone number of the caller who made the telephone

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call which is currently displayed on telephone
toolbar 24, obtained by an automatic number
identification service such as Caller ID.
   • Call Kind--The kind of the telephone call which
5   is currently displayed on telephone toolbar 24.
      Various call kinds are well known in the art.
   • Date--The current date.
   • Time--The current time.
   If necessary, Web-enabled terminal 18 may also pass
10 other data about the telephone call which is currently
being displayed on telephone toolbar 24 to Web
browser 25.
   It is noted that the connections between the
elements of telephone answering apparatus 15 shown in
15 Fig. 2 are conceptual connections, and do not necessarily
represent actual physical connections. As will be
apparent to one of ordinary skill in the art, the
conceptual connections shown in Fig. 2 may be implemented
with many different actual physical connections, which
20 may include direct-wired connections, bus connections,
network connections, and any other connections which are
known in the art.
   Furthermore, it is noted that telephone answering
apparatus 15 shown in Fig. 2 is merely exemplary, and
25 many modifications of telephone answering apparatus 15
will be apparent to one of ordinary skill in the art.
   Examples of devices which may be used to implement
telephony interface 4, auto attendant 5, text message
system 6, voice mail system 7, and client database 16 of
30 telephone answering apparatus 15 according to the present
invention shown in Fig. 2 are disclosed in U.S. Patent
Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and
5,469,491 and U.S. Reexamination Certificate B1 4,916,726
discussed above in the Background Art section of the
35 present application.

U.S. Patent Nos. 4,916,726 and 5,420,852 each
include a microfiche appendix listing a computer program
which may be used to implement telephony interface 4,
auto attendant 5, text message system 6, voice mail

5   system 7, and client database 16 of telephone answering
apparatus 15 according to the present invention shown in
Fig. 2 using IBM AT-compatible PCs.

It is noted that the auto-pop URL and the additional
URLs in client data file 17 in client database 16 of

10   telephone answering apparatus 15 according to the present
invention shown in Fig. 2 are part of the present
invention, and are not disclosed in U.S. Patent Nos.
4,916,726, 5,113,429, 5,259,024, 5,420,852, and 5,469,491
and U.S. Reexamination Certificate B1 4,916,726.

15   However, U.S. Patent Nos. 4,916,726, 5,113,429,
5,259,024, 5,420,852, and 5,469,491 and U.S.
Reexamination Certificate B1 4,916,726 disclose a client
database storing client data files which corresponds to
client database 8 storing client data files 9 in

20   prior-art telephone answering apparatus 1 shown in Fig.
1, and one of ordinary skill in the art would be able to
modify the client data files disclosed in U.S. Patent
Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and
5,469,491 and U.S. Reexamination Certificate B1 4,916,726

25   to include the auto-pop URL and the additional URLs of
the present invention.

An example of a device which may be used to
implement telephony interface 4, auto attendant 5, text
message system 6, voice mail system 7, and client

30   database 16 of telephone answering apparatus 15 according
to the present invention shown in Fig. 2 is the
commercially available Amtelco Infinity CTI server which
was discussed above in the Background Art section of the
present application.

35   It is noted that the auto-pop URL and the additional
URLs in client data file 17 in client database 16 of

telephone answering apparatus 15 according to the present
invention shown in Fig. 2 are part of the present
invention, and are not present in the Amtelco Infinity
CTI server. However, the Amtelco Infinity CTI server

5   includes a client database storing client data files
which corresponds to client database 8 storing client
data files 9 in prior-art telephone answering apparatus 1
shown in Fig. 1, and one of ordinary skill in the art
would be able to modify the client data files of the

10   Amtelco Infinity CTI server to include the auto-pop URL
and the additional URLs of the present invention.

       Alternatively, telephony interface 4 of telephone
answering apparatus 15 according to the present invention
shown in Fig. 2 may be implemented by a conventional TAPI

15   (telephone application programming interface)-compliant
telephony interface, such as a TAPI-compliant PBX
(private branch exchange). Many such TAPI-compliant
telephony interfaces are well known in the art.

       If telephony interface 4 of telephone answering

20   apparatus 15 according to the present invention shown in
Fig. 2 is implemented by a TAPI-compliant telephony
interface as discussed above, auto attendant 5, text
message system 6, voice mail system 7, and client
database 16 of telephone answering apparatus 15 according

25   to the present invention shown in Fig. 2 may be
implemented by the Amtelco Infinity CTI server. In this
embodiment, the telephony interface functions of the
Amtelco Infinity CTI server would not be used because the
TAPI-compliant telephony interface would provide the

30   necessary telephony interface functions.

       Alternatively, if telephony interface 4 of telephone
answering apparatus 15 according to the present invention
shown in Fig. 2 is implemented by a TAPI-compliant
telephony interface as discussed above, auto attendant 5,

35   text message system 6, voice mail system 7, and client
database 16 of telephone answering apparatus 15 according

to the present invention shown in Fig. 2 may be
implemented by devices which are disclosed in U.S. Patent
Nos. 4,916,726, 5,113,429, 5,259,024, 5,420,852, and
5,469,491 and U.S. Reexamination Certificate B1 4,916,726
5   as discussed above.

An example of a device which may be used to
implement the telephone number/Web page look-up feature,
the Web page display feature, and the Web browser data
exchange feature of Web-enabled terminal 18 of telephone
10   answering apparatus 15 according to the present invention
shown in Fig. 2 is a commercially available IBM
AT-compatible PC.

A computer program for implementing the telephone
number/Web page look-up feature, the Web page display
15   feature, and the Web browser data exchange feature of
Web-enabled terminal 18 according to the present
invention, may be stored in any suitable
processor-readable medium which is known in the art, such
as a CD-ROM, a floppy disk(s), a hard drive, DAT, ROM,
20   RAM, etc. When the computer program is read from the
processor-readable medium and is executed by a processor,
such a microprocessor in an IBM AT-compatible PC, it
causes the processor to perform the steps necessary to
provide the telephone number/Web page look-up feature,
25   the Web page display feature, and the Web browser data
exchange feature of Web-enabled terminal 18 according to
the present invention.

As discussed above, the basic telephone call
answering and processing capabilities provided by
30   Web-enabled terminal 18 according to the present
invention are the same as those provided by terminal 9 in
prior-art telephone answering apparatus 1 shown in Fig.
1, and suitable techniques and computer programs for
implementing these basic telephone call answering and
35   processing capabilities are well know in the art.

While the present invention has been described in terms of various embodiments, it is noted that numerous modifications may be made to these embodiments without departing from the spirit and scope of the present

5   invention as defined in the appended claims, and that all such modifications are intended to fall within the scope of the appended claims.

INDUSTRIAL APPLICABILITY

The present invention is applicable to telephone

10   answering apparatuses and methods.

CLAIMS

We claim:

1.   A telephone answering apparatus for answering telephone calls to telephone numbers for which telephone

15   calls are being answered by the telephone answering apparatus, the telephone answering apparatus comprising:

a storage device which stores information linking at least one of the telephone numbers for which telephone calls are being answered by the telephone

20   answering apparatus to a uniform resource locator (URL) identifying a page on the World Wide Web (Web page) associated with the telephone number;

a look-up device which looks up the telephone number of each telephone call answered by the telephone

25   answering apparatus in the storage device and, if the telephone number is found in the storage device, retrieves the URL identifying the Web page associated with the telephone number from the storage device;

a display; and

30   a Web page display device which displays on the display the Web page associated with the telephone number of the telephone call answered by the telephone answering

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apparatus in response to the URL retrieved from the
storage device.

2.   A telephone answering apparatus according to
claim 1, further comprising an answering device which
5   answers telephone calls to telephone numbers for which
telephone calls are being answered by the telephone
answering apparatus.

3.   A telephone answering apparatus according to
claim 2, wherein the answering device includes a terminal
10   which enables a user of the terminal to answer telephone
calls to telephone numbers for which telephone calls are
being answered by the telephone answering apparatus; and
          wherein the terminal includes the look-up
device and the Web page display device.

15   4.   A telephone answering apparatus according to
claim 3, wherein the user is an operator of a telephone
answering service; and
          wherein the terminal is an operator station of
the telephone answering service.

20   5.   A telephone answering apparatus according to
claim 3, wherein the user is an operator of a call
center; and
          wherein the terminal is an operator station of
the call center.

25   6.   . A telephone answering apparatus according to
claim 3, wherein the user is an individual user; and
          wherein the terminal is a personal computer or
a workstation used by the individual user.

7.   A telephone answering apparatus according to
30   claim 3, wherein the terminal includes an input device

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which enables the user to answer a telephone call, which
is waiting to be answered by the user, to a telephone
number for which telephone calls are being answered by
the telephone answering apparatus.

5   8.   A telephone answering apparatus according to
claim 7, wherein when the telephone call answered by the
user is a telephone call to a telephone number having a
Web page associated therewith, the Web page display
device displays on the display the Web page associated
10   with the telephone number of the telephone call answered
by the user in response to the telephone call being
answered by the user and the URL retrieved from the
storage device.

9.   A telephone answering apparatus according to
15   claim 7, wherein the Web page display device includes a
Web browser; and

wherein when the telephone call answered by the
user is a telephone call to a telephone number having a
Web page associated therewith, the Web browser displays
20   on the display the Web page associated with the telephone
number of the telephone call answered by the user in
response to the telephone call being answered by the user
and the URL retrieved from the storage device.

10.   A telephone answering apparatus according to
25   claim 7, wherein the terminal enables a plurality of
telephone calls answered by the user to be active
simultaneously.

11.   A telephone answering apparatus according to
claim 10, wherein the input device enables the user to
30   move between the active answered telephone calls to
select one of the active answered telephone calls for
processing.

12.   A telephone answering apparatus according to
claim 10, wherein when any of the active answered
telephone calls is a telephone call to a telephone number
having a Web page associated therewith, the Web page

5   display device displays on the display the Web page
associated with the telephone number of the active
answered telephone call in response to the active
answered telephone call being answered by the user and
the URL retrieved from the storage device.

10   13.   A telephone answering apparatus according to
claim 12, wherein the input device enables the user to
move between the active answered telephone calls to
select one of the active answered telephone calls for
processing; and

15   wherein as the user moves between the active
answered telephone calls to select one of the active
answered telephone calls for processing, the Web page
display device displays the Web page associated with the
telephone number of the active answered telephone call

20   which the user has selected for processing if the
selected active answered telephone call is to a telephone
number having a Web page associated therewith.

14.   A telephone answering apparatus according to
claim 10, wherein the input device enables the user to

25   issue a single command with the input device to move
between the active answered telephone calls to select one
of the active answered telephone calls for processing.

15.   A telephone answering apparatus according to
claim 14, wherein the input device includes a keyboard;

30   and

                 wherein user issues the single command with a
single keystroke on the keyboard.

16.　　　A telephone answering apparatus according to claim 14, wherein the input device includes a pointing device; and

wherein the user issues the single command with a single operation of the pointing device.

17.　　　A telephone answering apparatus according to claim 3, wherein the terminal displays on the display an indication that a telephone call to a telephone number for which telephone calls are being answered by the telephone answering apparatus is waiting to be answered by the user.

18.　　　A telephone answering apparatus according to claim 3, wherein the answering device further includes an auto attendant which automatically answers telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering apparatus without requiring the attention of the user; and

wherein the storage device stores information specifying whether telephone calls to each of the telephone numbers for which telephone calls are being answered by the telephone answering apparatus are to be answered initially by the user or by the auto attendant.

19.　　　A telephone answering apparatus according to claim 18, wherein when the auto attendant answers a telephone call to a telephone number for which telephone calls are being answered by the telephone answering apparatus, the auto attendant gives a caller who has made the telephone call the option to have the telephone call transferred to the terminal for answering by the user.

20.　　　A telephone answering apparatus according to claim 1, wherein the Web page associated with the

telephone number of the telephone call answered by the
telephone answering apparatus is located on the Internet.

21.   A telephone answering apparatus according to
claim 1, wherein the Web page associated with the
telephone number of the telephone call answered by the
telephone answering apparatus is located on an intranet.

22.   A telephone answering method for answering
telephone calls to telephone numbers for which telephone
calls are being answered by the telephone answering
method, the telephone answering method comprising the
steps of:
            storing information linking at least one of the
telephone numbers for which telephone calls are being
answered by the telephone answering method to a uniform
resource locator (URL) identifying a page on the World
Wide Web (Web page) associated with the telephone number;
            looking up the telephone number of each
telephone call answered by the telephone answering method
in the stored information and, if the telephone number is
found in the stored information, retrieving the URL
identifying the Web page associated with the telephone
number from the stored information; and
            displaying the Web page associated with the
telephone number of the telephone call answered by the
telephone answering method in response to the URL
retrieved from the stored information.

23.   A telephone answering method according to claim
22, further comprising the step of answering telephone
calls to telephone numbers for which telephone calls are
being answered by the telephone answering method.

24.   A telephone answering method according to claim
23, wherein the answering step includes the step of a

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user of a terminal answering, with the terminal, telephone calls to telephone numbers for which telephone calls are being answered by the telephone answering method.

5 25.   A telephone answering method according to claim 24, wherein the user is an operator of a telephone answering service; and
            wherein the terminal is an operator station of the telephone answering service.

10 26.   A telephone answering method according to claim 24, wherein the user is an operator of a call center; and
            wherein the terminal is an operator station of the call center.

27.   A telephone answering method according to claim
15 24, wherein the user is an individual user; and
            wherein the terminal is a personal computer or a workstation used by the individual user.

28.   A telephone answering method according to claim 24, wherein the terminal includes an input device; and
20   wherein the user uses the input device to answer a telephone call, which is waiting to be answered by the user, to a telephone number for which telephone calls are being answered by the telephone answering method.

25 29.   A telephone answering method according to claim 28, wherein the displaying step further includes the step of, when the telephone call answered by the user is a telephone call to a telephone number having a Web page associated therewith, displaying to the user the Web page
30 associated with the telephone number of the telephone call answered by the user in response to the telephone

call being answered by the user and the URL retrieved
from the stored information.

30.   A telephone answering method according to claim
28, wherein the displaying step further includes the step
of, when the telephone call answered by the user is a
telephone call to a telephone number having a Web page
associated therewith, displaying to the user, using a Web
browser, the Web page associated with the telephone
number of the telephone call answered by the user in
response to the telephone call being answered by the user
and the URL retrieved from the stored information.

31.   A telephone answering method according to claim
28, wherein a plurality of telephone calls answered by
the user may be active simultaneously.

32.   A telephone answering method according to claim
31, further comprising the step of the user using the
input device to move between the active answered
telephone calls to select one of the active answered
telephone calls for processing.

33.   A telephone answering method according to claim
31, wherein the displaying step further includes the step
of, when any of the active answered telephone calls is a
telephone call to a telephone number having a Web page
associated therewith, displaying to the user the Web page
associated with the telephone number of the active
answered telephone call in response to the active
answered telephone call being answered by the user and
the URL retrieved from the stored information.

34.   A telephone answering method according to claim
33, further comprising the step of the user using the
input device to move between the active answered

telephone calls to select one of the active answered
telephone calls for processing; and

      wherein the displaying step further includes
the step of, as the user moves between the active

5   answered telephone calls to select one of the active
answered telephone calls for processing, displaying to
the user the Web page associated with the telephone
number of the active answered telephone call which the
user has selected for processing if the selected active

10   answered telephone call is to a telephone number having a
Web page associated therewith.

35.   A telephone answering method according to claim
31, further comprising the step of the user issuing a
single command with the input device to move between the

15   active answered telephone calls to select one of the
active answered telephone calls for processing.

36.   A telephone answering method according to claim
35, wherein the input device includes a keyboard; and

      wherein the user issues the single command with

20   a single keystroke on the keyboard.

37.   A telephone answering method according to claim
35, wherein the input device includes a pointing device;
and

      wherein the user issues the single command with

25   a single operation of the pointing device.

38.   A telephone answering method according to claim
24, further comprising the step of displaying to the user
an indication that a telephone call to a telephone number
for which telephone calls are being answered by the

30   telephone answering method is waiting to be answered by
the user.

39.   A telephone answering method according to claim
24, wherein the answering step further includes the step
of automatically answering telephone calls to telephone
numbers for which telephone calls are being answered by

5   the telephone answering method without requiring the
attention of the user; and

wherein the storing step further includes the
step of storing information specifying whether telephone
calls to each of the telephone numbers for which

10   telephone calls are being answered by the telephone
answering method are to be answered initially by the user
or automatically without requiring the attention of the
user.

40.   A telephone answering method according to claim

15   39, further comprising the step of, when a telephone call
to a telephone number for which telephone calls are being
answered by the telephone answering method has been
answered automatically without requiring the attention of
the user, giving a caller who has made the telephone call

20   which has been answered automatically the option to have
the telephone call transferred for answering by the user.

41.   A telephone answering method according to claim
22, wherein the Web page associated with the telephone
number of the telephone call answered by the telephone

25   answering method is located on the Internet.

42.   A telephone answering method according to claim
22, wherein the Web page associated with the telephone
number of the telephone call answered by the telephone
answering method is located on an intranet.

30   43.   A processor-readable medium having stored
therein a program which, when executed by a processor,
causes the processor to perform a telephone answering

method for answering telephone calls to telephone numbers
for which telephone calls are being answered by the
telephone answering method, the telephone answering
method comprising the steps of:

5   storing information linking at least one of the
telephone numbers for which telephone calls are being
answered by the telephone answering method to a uniform
resource locator (URL) identifying a page on the World
Wide Web (Web page) associated with the telephone number;

10   looking up the telephone number of each
telephone call answered by the telephone answering method
in the stored information and, if the telephone number is
found in the stored information, retrieving the URL
identifying the Web page associated with the telephone

15   number from the stored information; and

              displaying the Web page associated with the
telephone number of the telephone call answered by the
telephone answering method in response to the URL
retrieved from the stored information.

20   44.   A processor-readable medium according to claim
43, wherein the telephone answering method further
comprises the step of answering telephone calls to
telephone numbers for which telephone calls are being
answered by the telephone answering method.

25   45.   A processor-readable medium according to claim
44, wherein the answering step includes the step of a
user of a terminal answering, with the terminal,
telephone calls to telephone numbers for which telephone
calls are being answered by the telephone answering

30   method.

46.   A processor-readable medium according to claim
45, wherein the user is an operator of a telephone
answering service; and

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wherein the terminal is an operator station of
the telephone answering service.

47.   A processor-readable medium according to claim
45, wherein the user is an operator of a call center; and
5   wherein the terminal is an operator station of
the call center.

48.   A processor-readable medium according to claim
45, wherein the user is an individual user; and
            wherein the terminal is a personal computer or
10   a workstation used by the individual user.

49.   A processor-readable medium according to claim
45, wherein the terminal includes an input device; and
            wherein the user uses the input device to
answer a telephone call, which is waiting to be answered
15   by the user, to a telephone number for which telephone
calls are being answered by the telephone answering
method.

50.   A processor-readable medium according to claim
49, wherein the displaying step further includes the step
20   of, when the telephone call answered by the user is a
telephone call to a telephone number having a Web page
associated therewith, displaying to the user the Web page
associated with the telephone number of the telephone
call answered by the user in response to the telephone
25   call being answered by the user and the URL retrieved
from the stored information.

51.   A processor-readable medium according to claim
49, wherein the displaying step further includes the step
of, when the telephone call answered by the user is a
30   telephone call to a telephone number having a Web page
associated therewith, displaying to the user, using a Web

browser, the Web page associated with the telephone
number of the telephone call answered by the user in
response to the telephone call being answered by the user
and the URL retrieved from the stored information.

5   52.   A processor-readable medium according to claim
49, wherein a plurality of telephone calls answered by
the user may be active simultaneously.

           53.   A processor-readable medium according to claim
52, wherein the telephone answering method further
10   comprises the step of the user using the input device to
move between the active answered telephone calls to
select one of the active answered telephone calls for
processing.

           54.   A processor-readable medium according to claim
15   52, wherein the displaying step further includes the step
of, when any of the active answered telephone calls is a
telephone call to a telephone number having a Web page
associated therewith, displaying to the user the Web page
associated with the telephone number of the active
20   answered telephone call in response to the active
answered telephone call being answered by the user and
the URL retrieved from the stored information.

           55.   A processor-readable medium according to claim
54, wherein the telephone answering method further
25   comprises the step of the user using the input device to
move between the active answered telephone calls to
select one of the active answered telephone calls for
processing; and
                       wherein the displaying step further includes
30   the step of, as the user moves between the active
answered telephone calls to select one of the active
answered telephone calls for processing, displaying to

the user the Web page associated with the telephone
number of the active answered telephone call which the
user has selected for processing if the selected active
answered telephone call is to a telephone number having a
5   Web page associated therewith.

56.   A processor-readable medium according to claim
52, wherein the telephone answering method further
comprises the step of the user issuing a single command
with the input device to move between the active answered
10   telephone calls to select one of the active answered
telephone calls for processing.

57.   A processor-readable medium according to claim
56, wherein the input device includes a keyboard; and
wherein the user issues the single command with
15   a single keystroke on the keyboard.

58.   A processor-readable medium according to claim
56, wherein the input device includes a pointing device;
and
wherein the user issues the single command with
20   a single operation of the pointing device.

59.   A processor-readable medium according to claim
45, wherein the telephone answering method further
comprises the step of displaying to the user an
indication that a telephone call to a telephone number
25   for which telephone calls are being answered by the
telephone answering method is waiting to be answered by
the user.

60.   A processor-readable medium according to claim
45, wherein the answering step further includes the step
30   of automatically answering telephone calls to telephone
numbers for which telephone calls are being answered by

the telephone answering method without requiring the attention of the user; and

wherein the storing step further includes the step of storing information specifying whether telephone calls to each of the telephone numbers for which telephone calls are being answered by the telephone answering method are to be answered initially by the user or automatically without requiring the attention of the user.

61.   A processor-readable medium according to claim 60, wherein the telephone answering method further comprises the step of, when a telephone call to a telephone number for which telephone calls are being answered by the telephone answering method has been answered automatically without requiring the attention of the user, giving a caller who has made the telephone call which has been answered automatically the option to have the telephone call transferred for answering by the user.

62.   A processor-readable medium according to claim 43, wherein the Web page associated with the telephone number of the telephone call answered by the telephone answering method is located on the Internet.

63.   A processor-readable medium according to claim 43, wherein the Web page associated with the telephone number of the telephone call answered by the telephone answering method is located on an intranet.

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FIG. 1
(PRIOR ART)
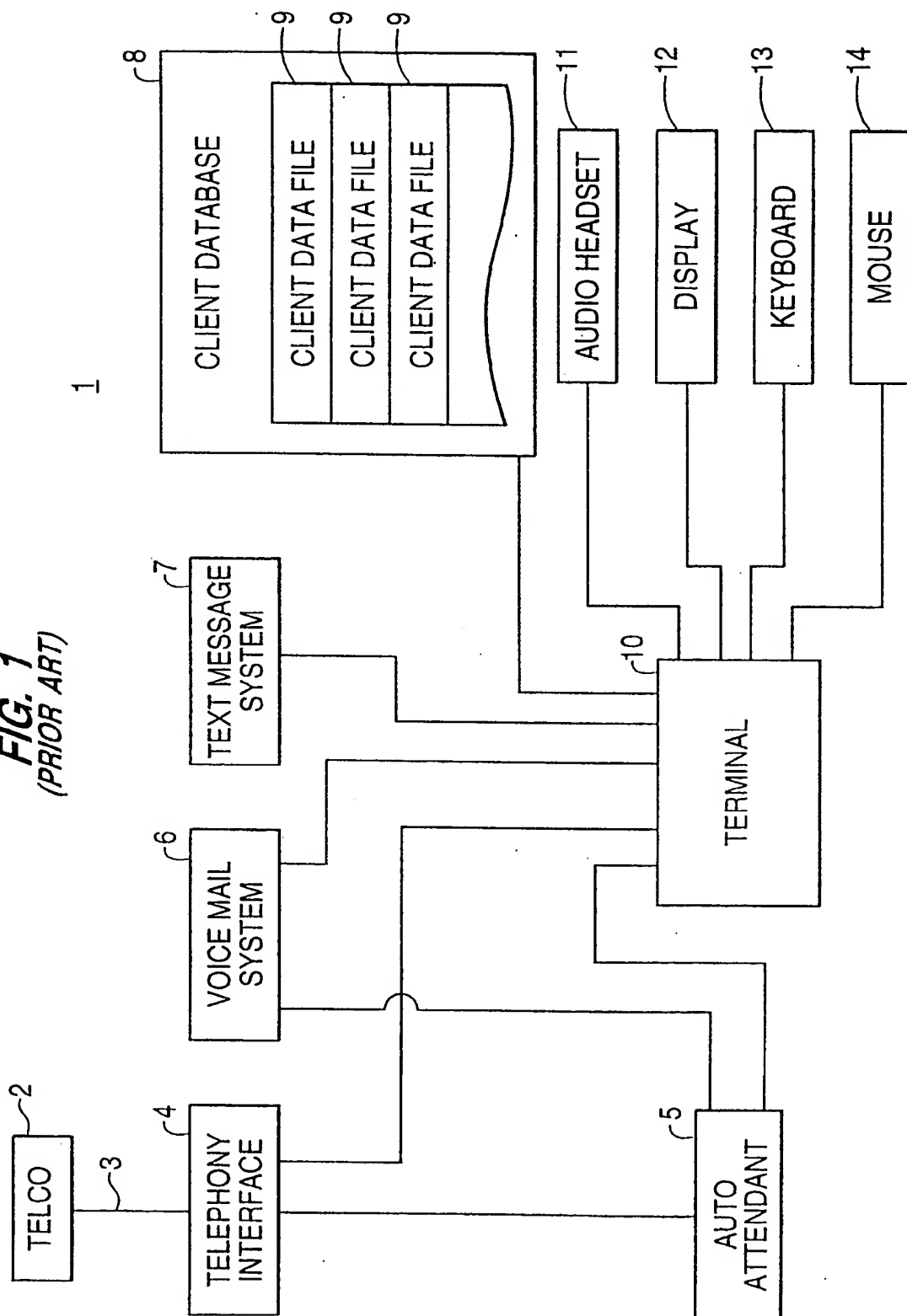
FIG. 2

FIG. 3

CLIENT DATA FILE

CLIENT NUMBER   17
CLIENT NAME
CLIENT ANSWER PHRASE
AUTO-POP URL
ADDITIONAL URLS

FIG. 4

23
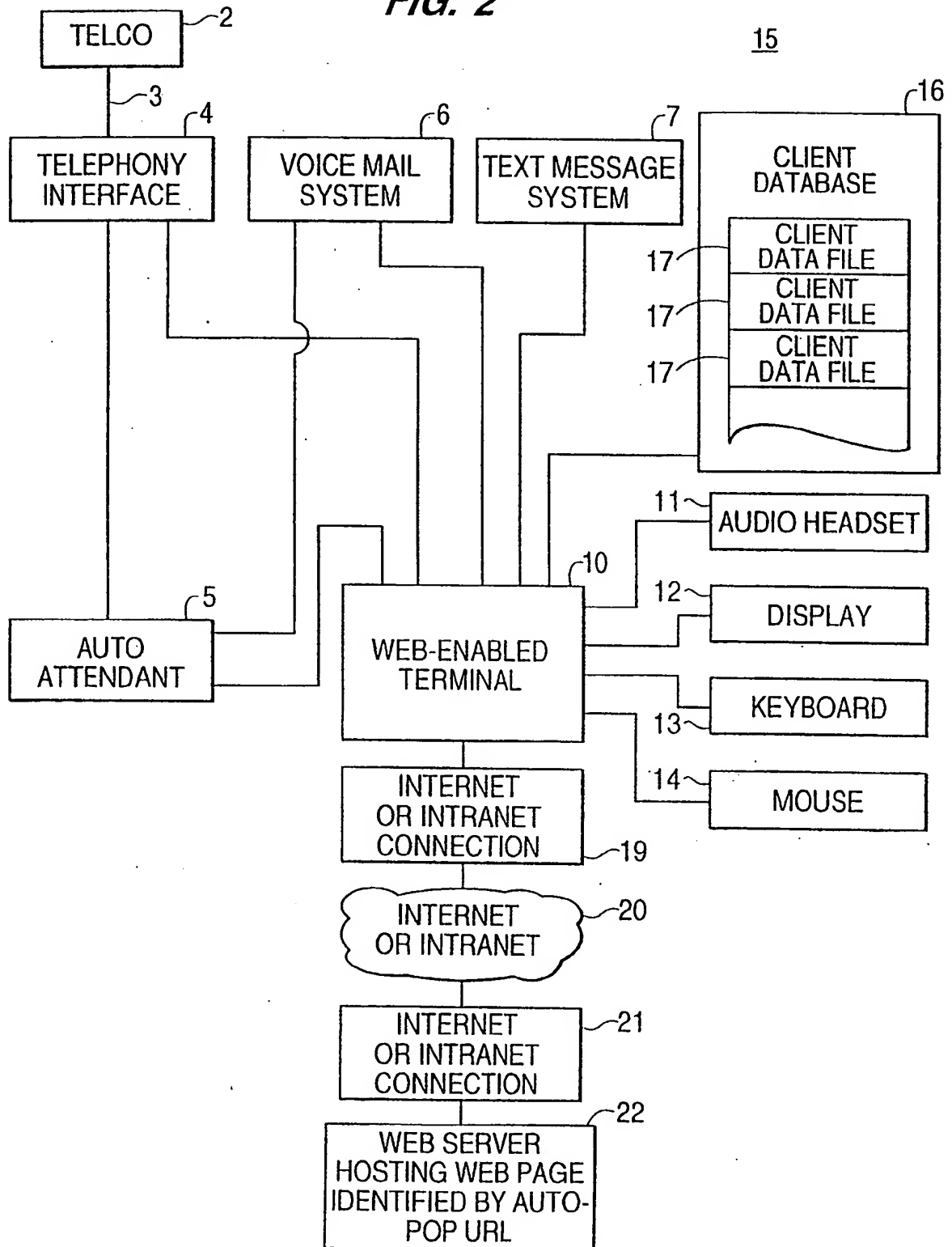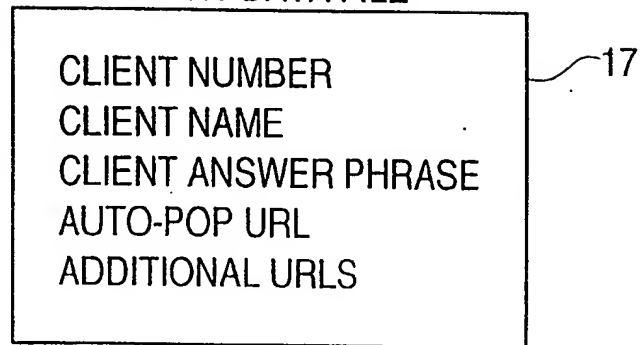
TERMINAL NUMBER	USER LOG-IN NAME	
CURRENT CALL STATE	CURRENT CALL TIMER	CLIENT NUMBER	CLIENT NAME	CLIENT ANSWER PHRASE
	CALL KIND	FROM
READER BOARD	ON/OFF		DATE	TIME

24

BACK	FORWARD	REFRESH	STOP	HOME		ZOOM	CANCEL

WEB PAGE

25

FIG. 5

USER ANSWERS TELEPHONE CALL FOR CLIENT USING WEB-ENABLED TERMINAL 18 — 26

WEB-ENABLED TERMINAL 18 LOOKS UP CLIENT NUMBER (TELEPHONE NUMBER OF ANSWERED TELEPHONE CALL) IN CLIENT DATABASE 16 — 27

CLIENT NUMBER FOUND IN ONE OF CLIENT DATA FILES 17 IN CLIENT DATABASE 16? — 28

NO

YES

WEB-ENABLED TERMINAL 18 RETRIEVES CLIENT NAME, CLIENT ANSWER PHRASE, AND AUTO-POP URL FROM CLIENT DATA FILE 17 IN CLIENT DATABASE 16 WHICH INCLUDES CLIENT NUMBER — 29

WEB-ENABLED TERMINAL 18 USES WEB BROWSER 25 TO RETRIEVE WEB PAGE IDENTIFIED BY AUTO-POP URL FROM WEB SERVER 22 — 30

WEB-ENABLED TERMINAL 18 DISPLAYS WEB BROWSER SCREEN 23 ON DISPLAY 12 SHOWING CLIENT NUMBER, CLIENT NAME, AND CLIENT ANSWER PHRASE IN TELEPHONE TOOLBAR 24, AND SHOWING WEB PAGE IN WEB BROWSER 25 — 31

END — 32

FIG. 6

24 — ACTIVE ANSWERED TELEPHONE CALL 1
(NOT SELECTED)

24 — ACTIVE ANSWERED TELEPHONE CALL 2
(SELECTED)

24 — ACTIVE ANSWERED TELEPHONE CALL 3
(NOT SELECTED)

WEB PAGE FOR ACTIVE ANSWERED TELEPHONE CALL 3
(NOT SELECTED)

WEB PAGE FOR ACTIVE ANSWERED TELEPHONE CALL 1
(NOT SELECTED)

25 —

25 —
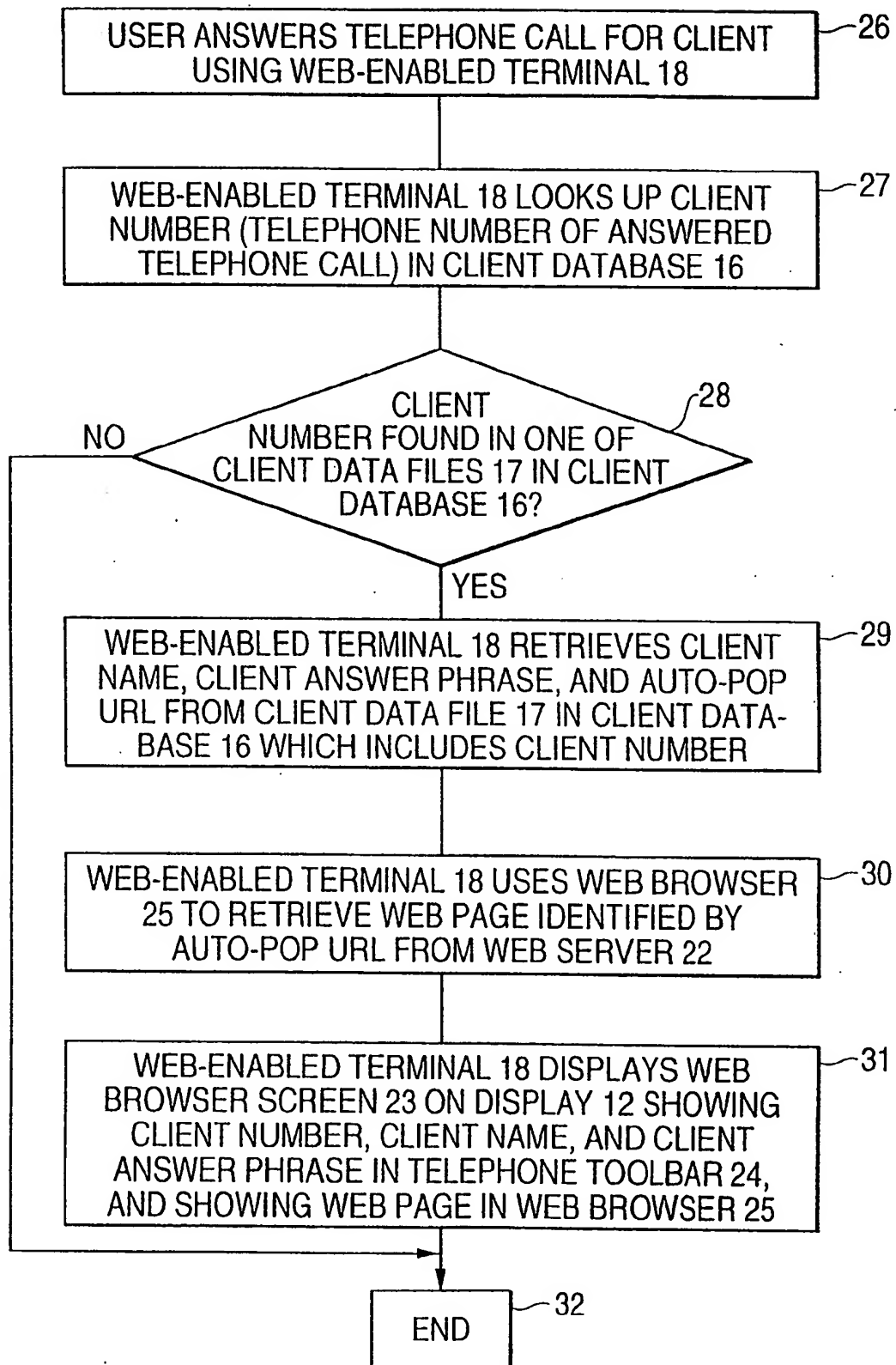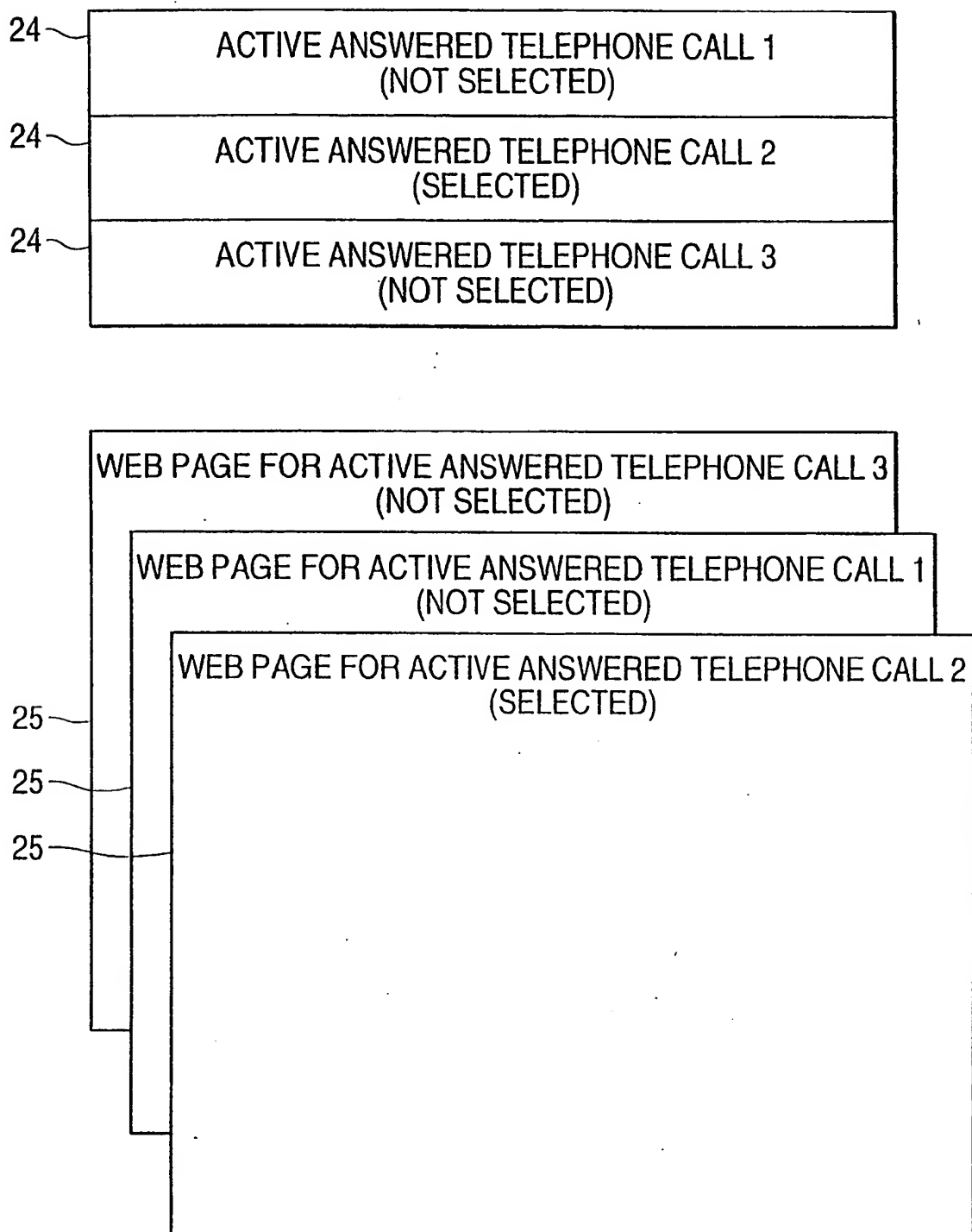
25 — WEB PAGE FOR ACTIVE ANSWERED TELEPHONE CALL 2
(SELECTED)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/06593

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7)   :H04M 3/42, 3/487, 3/51
US CL   :379/265, 88.17, 93.23, 142
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 379/265, 88.17, 93.23, 142, 67.1, 70, 88.19, 88.2, 88.21, 90.01, 93.01, 93.17, 127, 266, 267, 308, 309

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Metacrawler Internet search:
terms: Webcall

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Please See Extra Sheet.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A, P	US 5,884,032 A (BATEMAN et al.) 16 March 1999, col.2,ln.22-38; col.3,ln.63-col.4,ln.22; col.8,ln.62-col.9,ln.47.	1-63

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

<table>
<tr><td>*</td><td>Special categories of cited documents:</td><td>"T"</td><td>later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td></tr>
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<tr><td>"P"</td><td>document published prior to the international filing date but later than the priority date claimed</td><td>"&"</td><td>document member of the same patent family</td></tr>
</table>

Date of the actual completion of the international search	Date of mailing of the international search report
01 JUNE 2000	**29 JUN 2000**

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Form PCT/ISA/210 (second sheet) (July 1998) ★

B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

EAST

search terms: Call center, answering service, SOHO, Internet, world wide web, URL, universal resource locator, web page, HTML document, telephone number

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